

Serial No.: 09/413,012

Docket No.: R0052CON

Preliminary Amendment Dated November 7, 2005

Responsive to the FINAL Office Action dated September 7, 2005

**Amendments to the Claims:**

A complete listing of all claims is presented below.

5           1-33. (Canceled).

34. (Currently amended) A tissue dissector, comprising:

an elongated cannula having a proximal end and a distal end;

10           a distal tip having tapered outer walls converging to a blunt end for dissecting  
tissue, the tip being disposed on the distal end of the cannula to dissect tissue and facilitate  
passage of the cannula through tissue;

~~a locking mechanism positioned on length of screw threads positioned on an outer~~  
surface of the cannula proximal to the distal tip; and

15           a dilating element disposed on the cannula proximal to the distal tip, the dilating  
element having a smooth exterior contour to facilitate atraumatic expansion of tissue  
following dissection by the tapered distal tip, the dilating element having a cross-sectional  
dimension greater than the cross-sectional dimension of the distal end of the cannula and  
greater than the cross-sectional dimension of the distal tip, the dilating element further  
comprising a ~~mating lock adapted to mate with the locking mechanism~~ threaded bore hole  
20 formed in the dilating element for engaging the length of screw threads on the cannula for  
removably positioning the dilating element on the cannula.

35. (Currently amended) The tissue dissector of claim 34, wherein the dilating element  
is solid ~~locking mechanism comprises a length of screw threads positioned on an outer surface of~~  
25 ~~the cannula, and the mating lock comprises a threaded bore hole formed in the dilating element for~~  
~~engaging the length of screw threads.~~

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36. (Currently amended) The tissue dissector of claim 35, wherein the dilating element is selected from the group consisting of: polytetrafluoroethylene, polyurethane, and polycarbonate  
34, ~~wherein the locking mechanism comprises at least one protruberance positioned on an outer surface of the cannula, and the mating lock comprises a mating slot formed in the dilating element~~  
5 ~~for engaging the protruberance.~~

37. (Previously presented) The tissue dissector of claim 34, further including an endoscope sized to fit within a lumen of the cannula, wherein the distal tip is transparent to allow tissue being dissected to be visualized with the endoscope through the distal tip.

38. (Previously presented) The tissue dissector of claim 34, further including a spacer length of cannula of between 14-28 mm disposed between a distal end of the dilating element and a proximal end of the distal tip.

39. (Previously presented) The tissue dissector of claim 34, wherein the cross-sectional dimension of the dilating element is at least two times larger than the cross-section sectional dimension of the distal end of the cannula.

40. (Previously presented) The tissue dissector of claim 39, wherein the cross-sectional dimension of the dilating element is between 15-30 mm.

41. (Previously presented) The tissue dissector of claim 34, wherein the exterior contour of the dilating element is an oval-shape.

42. (Previously presented) The tissue dissector of claim 34, wherein the dilating element is compressible.

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43. (Previously presented) A tissue dissector kit, comprising:

an elongated cannula having a proximal end and a distal end;

a distal tip having tapered outer walls converging to a blunt end for dissecting tissue, the tip being disposed on the distal end of the cannula to dissect tissue and facilitate passage of the cannula through tissue;

a locking mechanism positioned on the cannula proximal to the distal tip; and

a plurality of dilating elements each adapted to mount on the cannula proximal to the distal tip, each dilating element having a smooth exterior contour to facilitate atraumatic expansion of tissue following dissection by the tapered distal tip, each dilating element having a cross-sectional dimension greater than the cross-sectional dimension of the distal end of the cannula and greater than the cross-sectional dimension of the distal tip, the cross-section sectional dimension of each dilating element being different from one another, each dilating element further comprising a mating lock adapted to mate with the locking mechanism on the cannula for removably positioning each dilating element on the cannula,

wherein different dilating elements may be mounted one at a time on the cannula for dissecting tissue and therefore forming cavities of differing dimensions.

44. (Previously presented) The tissue dissector of claim 43, wherein the locking

mechanism comprises a length of screw threads positioned on an outer surface of the cannula, and the mating lock comprises a threaded bore hole formed in each dilating element for engaging the length of screw threads.

45. (Previously presented) The tissue dissector of claim 43, wherein the locking

mechanism comprises at least one protruberance positioned on an outer surface of the cannula, and the mating lock comprises a mating slot formed in each dilating element for engaging the protruberance.

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46. (Previously presented) The tissue dissector of claim 43, further including an endoscope sized to fit within a lumen of the cannula, wherein the distal tip is transparent to allow tissue being dissected to be visualized with the endoscope through the distal tip.

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47. (Previously presented) The tissue dissector of claim 43, further including a spacer length of cannula of between 14-28 mm disposed between a distal end of each mounted dilating element and a proximal end of the distal tip.

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48. (Previously presented) The tissue dissector of claim 43, wherein the cross-sectional dimension of each dilating element is at least two times larger than the cross-section sectional dimension of the distal end of the cannula.

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49. (Previously presented) The tissue dissector of claim 48, wherein the cross-sectional dimension of each dilating element is between 15-30 mm.

50. (Previously presented) The tissue dissector of claim 43, wherein the exterior contour of each dilating element is an oval-shape.

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51. (Previously presented) The tissue dissector of claim 43, wherein each dilating element is compressible.

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52. (Previously presented) A tissue dissector, comprising:  
an elongated cannula having a proximal end and a distal end;  
a distal tip having tapered outer walls converging to a blunt end for dissecting tissue, the tip being disposed on the distal end of the cannula to dissect tissue and facilitate passage of the cannula through tissue; and

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5 a solid dilating element of fixed outer dimension disposed on the cannula proximal to the distal tip, the dilating element having a smooth exterior contour to facilitate atraumatic expansion of tissue following dissection by the tapered distal tip, the dilating element having a cross-sectional dimension greater than the cross-sectional dimension of the distal end of the cannula and greater than the cross-sectional dimension of the distal tip.

10 53. (Previously presented) The tissue dissector of claim 52, wherein the dilating element is removably mounted on the cannula.

15 54. (Previously presented) The tissue dissector of claim 53, further including a length of screw threads positioned on an outer surface of the cannula proximal to the distal tip, and wherein the dilating element further comprises a threaded bore hole for engaging the length of screw threads and removably positioning the dilating element on the cannula.

20 55. (Previously presented) The tissue dissector of claim 53, further including at least one protruberance positioned on an outer surface of the cannula proximal to the distal tip, and wherein the dilating element further comprises a mating slot for engaging the protruberance and removably positioning the dilating element on the cannula.

25 56. (Previously presented) The tissue dissector of claim 52, further including an endoscope sized to fit within a lumen of the cannula, wherein the distal tip is transparent to allow tissue being dissected to be visualized with the endoscope through the distal tip.

30 57. (Previously presented) The tissue dissector of claim 52, further including a spacer length of cannula of between 14-28 mm disposed between a distal end of the dilating element and a proximal end of the distal tip.

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58. (Previously presented) The tissue dissector of claim 52, wherein the cross-sectional dimension of the dilating element is at least two times larger than the cross-section sectional dimension of the distal end of the cannula.

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59. (Previously presented) The tissue dissector of claim 58, wherein the cross-sectional dimension of the dilating element is between 15-30 mm.

60. (Previously presented) The tissue dissector of claim 52, wherein the exterior  
10 contour of the dilating element is an oval-shape.

61. (Previously presented) The tissue dissector of claim 52, wherein the distal tip and dilating element are formed as a single unit removably mounted on the cannula.

15 62. (Previously presented) The tissue dissector of claim 61, further including an endoscope sized to fit within a lumen of the cannula, wherein the distal tip is transparent to allow tissue being dissected to be visualized with the endoscope through the distal tip.

20 63. (Previously presented) A tissue dissector, comprising:  
an elongated cannula having a proximal end and a distal end; and  
a dilating unit removably mounted on the cannula distal end, including:  
a distal tip having tapered outer walls converging to a blunt end for  
dissecting tissue, the tip being disposed on the distal end of the dilating unit to  
dissect tissue and facilitate passage of the cannula through tissue; and  
25 a dilating element having a cross-sectional dimension greater than the cross-sectional dimension of the distal end of the cannula and greater than the cross-sectional dimension of the distal tip, the dilating element being located proximally

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with respect to the distal tip to facilitate expansion of tissue following dissection by the tapered distal tip.

64. (Previously presented) The tissue dissector of claim 63, further including a length  
5 of screw threads positioned on an outer surface of the cannula near the distal end thereof, and wherein the dilating unit further comprises a threaded bore hole for engaging the length of screw threads and mounting the dilating unit on the distal end of the cannula.

65. (Previously presented) The tissue dissector of claim 63, further including at least  
10 one protruberance positioned on an outer surface of the cannula near the distal end thereof, and wherein the dilating unit further comprises a mating slot for engaging the protruberance and mounting the dilating unit on the distal end of the cannula.

66. (Previously presented) The tissue dissector of claim 63, further including an  
15 endoscope sized to fit within a lumen of the cannula, wherein the distal tip is transparent to allow tissue being dissected to be visualized with the endoscope through the distal tip.

67. (Previously presented) The tissue dissector of claim 63, further including a spacer  
20 length of the dilating unit of between 14-28 mm disposed between a distal end of the dilating element and a proximal end of the distal tip.

68. (Previously presented) The tissue dissector of claim 63, wherein the cross-sectional  
dimension of the dilating element is at least two times larger than the cross-section sectional  
dimension of the distal tip.

25 69. (Previously presented) The tissue dissector of claim 68, wherein the cross-sectional dimension of the dilating element is between 15-30 mm.

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70. (Previously presented) The tissue dissector of claim 63, wherein the exterior contour of the dilating element is an oval-shape.

5 71. (Previously presented) The tissue dissector of claim 63, wherein the dilating element is compressible.